CWP Inquiry
Sub No. 034

1st December 2016

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Coal Workers' Pneumoconiosis Select Committee
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Submission to the Select Committee Queensland Parliamentary Inquiry into Coal Workers' Pneumoconiosis (CWP)

Dear Research Director, please consider this late submission to your inquiry. I promised a number of the committee members at the Collinsville hearing, that I would forward a detailed submission I made to a Senate Inquiry in 2013 on Impacts of Air Quality on Health as it relates directly to the coal mining operations around Collinsville.

I believe the main reasons for this tragic failure to deal with dust levels and Black Lung are:

- *Conflict of Interest*
- *Imbalance in Power*
- Failure of *Self-Regulation*
- *Industry Capture* of Government Policy
- *Willful Blindness*
- Laziness

Further Information:

https://www.uow.edu.au/~sharonb/EIS.html

Bias and Credibility in Environmental Impact Assessment

Citation: Sharon Beder, 'Bias and Credibility in Environmental Impact Assessment', *Chain Reaction*, No. 68, February 1993, pp28-30.

Environmental Impact Statements (EISs) have lost credibility with environmental and resident groups over recent years because they are being increasingly perceived as biased public relations documents. This arises in part because the community generally expects that an EIS should be an objective scientific report whilst many consultants and project proponents view an EIS as a supporting document prepared as part of the procedure for gaining approval for a project.

The goal of a completely objective document is illusory because science itself is socially constructed. This is exacerbated by the circumstances of EIS preparation where large investments, careers and the viability of businesses are at stake. It is therefore inevitable that the values and goals of those preparing an EIS will shape its contents and conclusions through the way scientific data is collected, analysed, interpreted and presented.

Why EISs cannot be objective

Because the EIS is done rather late in the planning process the project proponents will almost certainly have committed considerable financial resources to a particular option at a particular site. The EIS at this stage becomes another obstacle in a field of bureaucratic hurdles on the way to their end goal. Naturally, they will want that document to emphasise the advantages of the project to the community and to down play the disadvantages.

Moderating Bias and Removing Conflicts of Interest

It is often argued by supporters of the system that the Environmental Impact Assessment process has built in checks against bias and distortion because the EIS is subject to public scrutiny when it is displayed and then it is assessed by government authorities. Those preparing the EIS, generally professional consultants, are aware of this and few would risk their reputations by preparing a shonky EIS. However, as I have been arguing, the bias in EISs is generally not of the type that can be pointed to as being incorrect or a lie or an omission. More generally, the consultants have merely made their choices and judgements at the more favourable end of a range that is scientifically credible.

Nevertheless there are ways in which the social shaping of an EIS can be made more transparent to the reader. Rather than attempting to appear objective an EIS should incorporate discussion of assumptions, choice of methods and different interpretations that can be made of the studies. Sub-consultants' unedited reports and raw data should also be made publicly available. The final EIS could be subject to peer review.

It has been suggested that peer review be anonymous because of the retribution that can be meted out to those criticising an EIS prepared for a powerful organisation or business interest. However, anonymity can also provide a cover for abuse since the reviewer cannot be held accountable for their comments. It is for these reasons, that whistle blowers and those that speak publicly against the work of their peers in the public interest should be encouraged and protected. Employees and sub-consultants should also feel free to speak out when they feel their work has been misrepresented or wrongly interpreted in the EIS.

The major factors preventing a more transparent and accessible EIS and an atmosphere conducive to free discussion of likely impacts arise from the way the Environmental Impact Assessment (EIA) process is itself structured. Those who prepare the EIS, or hire the consultants to do so, usually have much at stake, financially or politically. The consultants themselves can also have much to lose. Consultants are dependent on the judgement of clients and that judgement is based on whether they are perceived to be able to deliver what is required by the client. Consultants with overdeveloped consciences, who do not put the client's priorities first, are less likely to be given work in future. Professional integrity and codes of ethics don't always withstand such pressures.

Consultants could be more independent if they were not directly hired by project proponents. An independent panel with community representation could choose the consultants from tenders. Proponents would still pay the consultants. In this way a firm which compiled an EIS that led to the abandonment of a project would not be penalised for doing so by being denied EIS work in the future. Of course such a panel would have also to be independent from government because of the prevalence of government projects that would have to be assessed.

Biases would still remain since judgements would still be required but there would be a better chance that those biases would be aligned with the community interests rather than the project proponent's interests. Also there is more likelihood that consultants under such a system would be willing to make EISs more transparent to the public and to discuss uncertainties and unknowns. Nevertheless I have found both developers and EIS consultants opposed to such a scheme because it suits them and the cosy relationship they have with each other. [end excerpt]

http://www.icac.nsw.gov.au/
ICAC (Independent Commission Against Corruption – NSW) list of corruption prevention recommendations in relation to operations Jasper and Acacia - Wednesday 28 October 2013
Recommendation 8 - That the assessment panel provides a triple bottom line assessment of the environmental, social and economic factors of allocating an EL (Exploration Lease) and reports its findings to the steering group.

Triple Bottom Line Accounting (TBL) should be mandatory around the world by now but unfortunately seems to have been sidelined yet its adoption is inevitable sooner or later.
The inaugural conference of the Australia & New Zealand Society for Ecological Economics (ANZSEE) was held in Coffs Harbour in 1995. http://anzsee.org/
A foundation principle of ecological economics is the economy is a subsystem of the ecosystem and economic decisions need to take the full and true costs and benefits into account.
The factoring in of all costs and the long term liabilities when decisions are made about alternative technologies and development options should be a no-brainer as very costly mistakes with far greater long term loses than short term benefits can be made.

The OECD found the strictness of environmental policies has "increased significantly" in all the countries over the past two decades. But that increased stringency has not harmed productivity growth or productivity levels. In fact, new green regulations "may translate into a permanent increase in productivity levels in some industries."
How can this be? One possible explanation is that the new regulations have pushed firms to operate more efficiently than would otherwise have been case – the green tape has encouraged innovation and investment that has allowed firms to do things better. The improvements triggered by stricter environmental rules have more than offset the costs.
http://www.smh.com.au/comment/oecd-says-green-tape-is-not-damaging-the-economy-20150131-132a98.html

Thank you for considering my submission to this critically important inquiry.

Yours sincerely, Garry Reed

Attachment 1

8th March 2013 EMAIL TRANSMISSION

Garry Arthur Reed

Senate Committee Inquiry into the Impacts of Air Quality on Health

Secretary Senate Standing Committees on Community Affairs,
PO Box 6100
Parliament House Canberra
ACT 2600.

https://senate.aph.gov.au/submissions/pages/index.aspx
email: community.affairs.sen@aph.gov.au

Health impacts of air pollution
Senate Community Affairs Committee

Chair: Senator Rachael Siewert

The Committee's terms of reference are to examine the impacts on health of air quality in Australia, including:
(a) particulate matter, its sources and effects;
(b) those populations most at risk and the causes that put those populations at risk;
(c) the standards, monitoring and regulation of air quality at all levels of government; and
(d) any other related matters.

Points to consider for the submission:
(1) Planning processes
(2) Heath effects
(3) Air monitoring
(4.1) Other matters: personal and community anxieties
(4.2) Dust

Introduction

Collinsville is located at the north of the Bowen Coal Basin, 84 km inland by road from Bowen on the northern section of the Whitsundays in Central Queensland.

The establishment of the State-owned Bowen Consolidated Mines in 1919 led to the establishment of the settlement of Moongunyah, the local indigenous word for coal; although by 1921, local politician Charles Collins managed to have the town renamed to Collinsville.

Mount Coolon Road, Collinsville Old Town, the southern entrance.

Collinsville has a history of coal mining since 1912 with underground mines from 1919 until open cut mining took over from the 1980's.

Seven men were killed in a mine accident in Collinsville in October 1954, highlighting the need for better safety equipment. Around forty miners were working underground at the time.
A Collinsville Miners Memorial Day is held on the 13th of October each year.
A quote from last years memorial day brochure: *We gather here today and every year on the 13th day of October united in grief, to pay tribute and honour all of our miners that have fallen in the winning of coal here in Collinsville; 26 men and 2 Pit Ponies... Whilst today's ceremony is a solemn occasion, it is an opportunity for today's miners to heed "The Real Cost of Coal."*

The Collinsville open cut pits have had problems with spontaneous combustion fires in the spoil heaps and possibly some coal seams. Last year there were reports of appropriately 80 spoil heap fires and some incidents lead to the closing of the operation for several days. Remediation works have been put in place and a Air Quality Testing Group formed including the State Government regulation authority and the local coal mine operators; Xstrata, Qcoal, Sonoma Mine Management and rail operator QR National/Aurizon. It has been confirmed that monitoring of PM 2.5 will not occur. (see below, Collinsville open cut, 18.7.12 – 11am)

Pelican Creek via Scottville looking to the Collinsville Coal Blake open cut with spoil heap fire smoke visible, a haze can be seen above the fires with a much clearer horizon away to the south west. 4.7.08 - 3pm

http://www.townsvillebulletin.com.au/article/2012/03/17/314881_news.html

Miners hit by deadly gases

JANE ARMITSTEAD | March 17th, 2012

AN investigation has been launched to determine how a deadly cocktail of gases cut down an entire crew at a North Queensland coal mine.

Fourteen miners from the Collinsville Coal Mine were rushed to hospital late Thursday and about 50 were reportedly evacuated at 3am Friday before it was closed.

The miners were believed to have suffered gas poisoning after exposure to sulphur dioxide and carbon monoxide, among a cocktail of other deadly gases.

They reportedly struggled to breathe, began vomiting, suffered from severe nausea and lost vision due to stinging and irritated eyes.

The mining union yesterday said the mine should have been shut down long ago as more than 30 people had been rushed to hospital with gas-related issues, including a woman who was airlifted to Rockhampton and placed in an induced coma, narrowly escaping death, in the past two months.

A miner on shift who asked to remain anonymous said panic shot through the site after an entire crew "went down" from gas exposure.

"A whole crew went down, even a young inexperienced girl who shouldn't have been in the area in the first place," he said.

"The risks have been there for months, we have had enough, what does it take for them to do something before people get killed."

Personal Experience

My Grandfather Frederick Reed died at the Collinsville mine in 1932 and was the third miner to die in the coal mines here. At the time my Father, Ronald was 10 years old and my Uncle, Andrew was 16 years old. I grew up on the family farm 4 km out of Scottville that is 3 km from Collinsville. My Father, Ron and my Uncle Andy were very hard working but careful and risk averse. I was destined to be safety conscious and proactive about hazards, good design and governance, and system

failures.

Personal experience can be a powerful motivator and a boiler explosion that put a school friend on the critical list in a saline bath in Townsville hospital at the beginning of my electrician apprenticeship at the local Collinsville Power Station had a profound effect on me.

There is another experience more removed from direct experience but is also seared in my mind. I almost got a job on a gas rig in the North Sea off Aberdeen in Scotland in 1985. About two and a half years later on the 6th July 1988 the Piper Alpha disaster happened, killing 167 men.

The Cullen Inquiry made 106 recommendations for changes to North Sea safety procedures, all of which were accepted by industry

Most significant of these recommendations was that the responsibility for enforcing safety in the North Sea should be moved from the Department of Energy to the Health and Safety Executive, as having both production and safety overseen by the same agency was a conflict of interest.

It should be common sense that conflict of interest can arise regardless of how many assurances are made, so true independence and separation of powers must exist between the Government, regulating authorities, monitoring and testing organisations & companies and project proponents.

It is also obvious that there is a great imbalance in power between the community and large companies here. This community is very dependent on jobs from coal mines giving them a great advantage and they have far greater financial resources and industry lobby groups & PR consultants that leaves the local authorities, community groups and landholders overwhelmed.

I believe from local experience and reports from others that there are serious shortcomings in the processes that are supposed to protect community and environmental health.
A report from ABC News - 17.10.10 gives reason for serious concern.

http://www.abc.net.au/news/2010-09-17/testers-fabricating-air-pollution-reports/2263742

A former employee of an Australian air testing company alleges data is being fabricated and fraudulently provided to regulatory bodies and is going unchecked by the government.

The scientist says he and colleagues were pressured to cut corners...

The man says he has obtained copies of reports that support his claims since leaving the company.

And he says he believes the fraudulent behaviour is going undetected and could be widespread within the industry.

He alleges the National Association of Testing Authorities (NATA) and the Department of Environment and Resource Management are not sufficiently regulating compliance to standards.

"The Environmental Protection Agency is requesting that industry provide them with reports by NATA-accredited bodies that detail the levels of air emissions that they have," he said.

"But when these reports are submitted they are taken at face value and they're not being properly scrutinised by either NATA or the EPA. So there is nothing to show that these are being done properly, and I have evidence to show that they haven't been done properly if they were to be checked."

He says the effects of non-compliance could be detrimental for the public.

"If we don't have accurate figures on what is being emitted into the air, in Gladstone for example, we have no way of knowing if levels are being exceeded past safe community levels - and the air could have high levels of lead, high levels of dioxins, of carcinogens, or poisons into the atmosphere which could then cause sickness."

The scientist also says that due to non-compliance going unchecked, councils make uninformed decisions about industry expansions.

And he says similar discrepancies in air testing could be occurring in the coal seam gas industry.

"If they got the incorrect information about the amount of pollutants that are being put into the atmosphere, they are unable to accurately determine whether to go ahead with expansions, because they don't have a correct baseline to know what the air pollution levels are at any one time."

He says during his time at the company he saw large companies go from struggling to pass compliance tests, to easily passing environmental standards.

"NATA needs to start doing their job properly," he said.

"Unfortunately they're not an independent body because they are paid for by the stack testing companies themselves ... so there is no independence there.

"But ideally we should look more towards the American model, where the environmental protection agency have their own sampling officers who are fully experienced in stack testing and actually will perform surprise visits to stack testing companies when they're on site, are able to audit reports, and have a requirement that raw data is included in the stack testing reports so that anyone can have a look and ensure that things are being done to the standard.

"At the moment there are no requirements that you include your raw data in Australia. And every testing company should have that data. It should be no problem for them to include it in any report that they submit, to show that things were done to the standard." (end of excerpts)

I believe the situation has the potential to get even worse in Queensland as the EIS process is making changes to the way it operates, it seems as a cost cutting exercise and a way of speeding up approvals. This comes on top of major staff cuts in the departments.

http://www.ehp.qld.gov.au/management/planning-guidelines/policies/regulatory-strategy.html

A Case Study

After the Sonoma Coal Mine was proposed in 1996 for a site on Sonoma Station 5km upstream on Coral Creek from our farm, I did not make a objection as there were explicit promises to protect the major waterway with a buffer zone.

Unfortunately within 2 years a proposal was made to divert Coral Creek to mine the coal underneath. The coal deposit represents 1.4% of the of the Sonoma mine total Run of Mine (ROM) and as a percentage of the new mines in process locally by the parent company Qcoal, represents about 0.14% of ROM. The local community was as outraged as I was and has resulted in a necessity to devote all my time and resources into opposing the diversion as my common sense told me and subsequently expert reports, that the proposal was very high risk and threatened our farm's water supply and those downstream, as well as the survival of the threatened Black Ironbox/Creek Coolabah (Eucalyptus raveretiana).

So far I have spent two and a half years and $75,000 on this case. The cost would have been much higher without the help of the EDO. Unfortunately the new state government withdrew all its funding to the Queensland and North Qld Environmental Defenders Office (EDOQLD & EDONQ).

http://www.brisbanetimes.com.au/queensland/groups-consider-legal-action-against-government-cutbacks-20120705-21jv0.html

The EDO's north Queensland office, which questioned the proposed Hay Port coal loading facility and over-development of north Queensland ports, has lost $100,000 – about 50 per cent – of its funding.

EDO North Queensland management committee president John Seccull said he would have accepted general cuts across the 30 community legal aid areas because of budget cuts.

"Reducing the funding to community legal services across the board, I would have accepted that as a legitimate consequence of funding cutbacks," he said.

Mr Seccull said there was a lot of election rhetoric of cutting "green-tape."

"And in my view this is a consequence of that," he said.

"It will mean that we can no longer operate effectively as a community legal centre." (end excerpts)

The case is continuing and the costs are likely to pass the $100,000 that was saved by the Queensland government and will impact on my farming operation's future very significantly. The health and loss of income costs to myself and those helping me are great also.

The experience has been a great wakeup call and has motivated me to contribute to the regulation process as I understand how critically important it is. What has become obvious to me is that many companies will exploit every opportunity to maximise their profit if they are allowed to, and that this is actually an obligation to their owners and shareholders.

Therefore government and community organisations have a critical role to balance the power imbalance as the stakes are enormous.

Recent Illustration

I have made submissions to the Environmental Impact Statement (EIS) for the Qcoal Drake Coal Project which is a coal mine directly south of the Qcoal Sonoma Mine and Qcoal Cows Coal Mine and beside the Qcoal Jax Mine. The Drake Coal mine would be as close to our farm as the Sonoma mine and has the potential to significantly increase the existing dust and noise problems.

Drake Coal Project Environmental Impact Statement (EIS) – June 2012,
Draft Supplementary EIS (DSEIS) – November 2012,
Supplementary EIS (SEIS) – March 2013.

Refer to Appendix B for complete EIS submission relating to the air quality issues.

SEIS Comment: I have just noticed this reference in the EIS Air Quality Assessment- Appendix K.
For the year 2008/2009, hourly meteorological data from the on-site Sonoma Automatic Weather Station (AWS)2, which was located some 7 km north of the Project site, was used to develop a meteorological file for a full year. This data included raw data on temperature, wind speed and direction and sigmatheta (standard deviation of wind direction).
2 An on-site inspection of the AWS indicated that the instrument was installed and is operated by the same NATA registered laboratory that performs the dust deposition monitoring. However, it is noted that the site location does not conform to the siting guidelines of the Australian Standard AS 2923-1987 *Ambient Air – Guide for measurement of horizontal wind for air quality applications*. In particular, the 10 m mast does not have the necessary horizontal clearance of '10-times the height of nearby obstacles'. This seems to be reflected in the measured annual average wind speed being 2.35 m/s which is significantly lower than the Parsons Brinckerhoff (Report 2136452-RPT001-B_Iss1) prognostic-modelled annual average of 4.3 m/s. Since this is the best available measured data for the site, and with the best exposure being in the direction of the prevailing winds from the east, these data from the AWS were used in this report.

I have also noticed that there is an inaccuracy in this Air Quality Assessment regards the distance of the site from the coast, it states 150km but is in fact less than 75km.

EIS Submission. ***4.4 Climate Change***

As well as a decrease in annual rainfall, an increase in daily precipitation intensity (rain per rain-day) and the number of dry days is predicted. The future precipitation regime will have longer dry spells interrupted by heavier precipitation events. Changes to extreme events would have the potential to increase erosion rates and flood frequency, with implications for river flow, water quality, and the design standards of infrastructure.

Drought occurrence is projected to increase over most of Australia (CSIRO, 2007). (CSIRO (2007). Climate Change in Australia, Technical Report, developed by Commonwealth Scientific and Industrial Research Organisation and the Bureau of Meteorology in partnership with the Australian Greenhouse Office, Canberra.)

Models have predicted a range in rainfall changes from an annual increase of 17% to a decrease of 35% by 2070. The 'best estimate' of projected rainfall change shows a decrease under all emissions scenarios (DCC, 2009). (Department of Climate Change (2009). Climate Change Risks to Australia's Coast, Commonwealth of Australia, Canberra.)

These predictions are bad news for our country, vegetation and degraded and rehabilitating land for the very long term. The elephant in the room is how this mine will indirectly contribute to climate change and the wisdom of facilitating industry processes that in themselves contain sacrifices of land quality that will prevail indefinitely.

DSEIS Response from proponent.

Noted. Climate change impacts have been discussed in Chapter 4 of the EIS Report. Consequences of climate change that were considered include: increased temperatures, flooding from intense rainfall, reduction in rainwater availability, erosion, damage from cyclonic conditions and bushfires. The Proponent will take all necessary measures outlined in the EM Plan and PMLUP to mitigate and manage the impacts of the mine operations on the existing environment values which could ultimately leverage impacts on climate change.

SEIS Comment. I regret not asking the proponent what they meant by this statement. As I read it again I am left with the feeling I get from a lot of the responses, of issues being explained away and leaving one feeling confused or overwhelmed in many cases. I am not left with a feeling of confidence and satisfaction but uncertainty, frustration and deep concern.

EIS Submission.

4.4.5 Cyclones

Under three different studies the number of severe tropical cyclones is projected to increase by 56% by 2050 (Walsh et al., 2004) (Walsh KJE, Nguyen KC and McGregor JL (2004). Finer resolution regional climate model simulations of the impact of climate change on tropical cyclones near Australia, Climate Dynamic, 22:1,www.springerlink.com/contect/brmpmturdqvxh3vv.) , 22% by 2050 (Leslie et al., 2007) (Leslie LM, Karoly DJ, Leplastrier M and Buckley BW (2007). Variability of Tropical Cyclones over the Southwest Pacific Ocean using High Resolution Climate Model, Meteorology and Physic 97 (Special Issue on Tropical Cyclones), ftp.gfdl.noaa.gov.au/qld-regional-profiles.) and 140% by 2070 (Abbs et al., 2006).(Abbs D, Aryal S, Campbell E, McGregor J, Nguyen K, Palmer M, Rafter A, Watterson I and Bates B (2006). Projections of Extreme Rainfall and Cyclones: Final Report to the Australia Greenhouse Office, CSIRO Marine and Atmospheric Research, Canberaa, www.cmar.csiro.au/eprint/ open/abbsdj_2006b.pdf.)

These results are of great concern because of the presence on the site of residual voids liable to overflow and spoil heaps that may be unstable over time.

> The soils of non-alluvial soil substrates naturally occur on level to very gently undulating slopes. When they are placed at any significant angle, they are prone to erosion by rain and wind and the resultant material is transported into waterways and sensitive receiving environments. Because of the uncertainties of climate change the problem may not arise for some time or could dramatically exacerbate existing problems.

SEIS Proponent document:
Comment GR 41
The serious questions that I have raised and the reference material I have presented here and also the comments and material presented by the Q-MCG 34 were not answered by the response: PM2.5 was modelled and assessed and found to have lesser impact than PM10. In fact the complete lack of response to the extremely serious issues raised about the effects of dust on the community and the resultant health implications and potential loss of life is derisory and could be seen as showing contempt for our community.

The Draft EA - MIN100942709 for Cows Coal Mine immediately to the south of Sonoma Coal Mine and to the north of the proposed Drake mine has called for PM2.5 monitoring. It should be understood by the proponent that the DERM and now the EHP require monitoring of PM2.5 on new coal mines. It shows bad faith and disrespect for the Collinsville community by QCoal Drake to attempt to roll back best practice environmental standards. **(I have confirmed that the final Cows Coal EA , signed 5 June 2012 requires PM2.5 monitoring.)**

My research has found that 11 years ago, Australian governments resolved to adopt a standard for fine particle pollution (PM2.5). During that time the World Health Organisation has issued recommended guidelines and many developed nations have now adopted those standards.

Response from proponent
This submission is new material that was received after the submission period ended.
The Air Quality Assessment (Appendix K of the EIS) provides detailed information on impacts and mitigation measures associated with the Project. As described in this assessment, PM2.5 was modelled and assessed and found to have lesser impact than PM10. Dust monitoring will be in accordance with the environmental authority.

8.2 High Level Mitigation Measures

- Application of the high level mitigation measures are expected to reduce dust emissions by 40%, that their application will result in compliance to the EPP (Air)/NEPM (Air) objectives/goals;
- The Project is predicted to comply with the assessment criteria EPP (Air)/NEPM (Air) objectives/goals for PM_{10} at the public-restricted mining lease boundary, for preparation and operations over the 26 year life of the mine with the addition of high level mitigation;
- As the most problematic constituent PM_{10} is now compliant for both the preparation and operations over the 26 year life of the mine, it is then fair to assume that $PM_{2.5}$ and TSP would also be compliant at the site boundary with their appropriate criteria with the addition of high level mitigation; and
- The Project is predicted to easily comply with all relevant EPP (Air)/NEPM (Air) air quality objectives and goals at all sensitive receptors identified and at Collinsville for preparation and operations over the 26 year life of the mine with the addition of high level mitigation.

SEIS recommendation – PM2.5 must be measured in this, the 13th year of the 21st Century under a democratic developed first world government.

How can the proponent be so sure that they will comply with PM2.5 modelling if they are not actually monitoring PM2.5? ***Expected to, the Project is predicted to comply, it is then fair to assume and, the Project is predicted to easily comply,*** **are not good enough, why is there so much reluctance to agree to monitor PM2.5, it's not rocket science.**

EIS submission.

11.11 Discussion on High Level Mitigation Results *(see above)*

This prediction seems to defy common sense as i would expect PM2.5 particles which are lighter I presume than PM10, to travel further by wind.

Coal s Assault on Human Health - A Report From Physicians For Social Responsibility
By Alan H. Lockwood, MD FAAN Kristen Welker-Hood, ScD MSN RN Molly Rauch, MPH Barbara Gottlieb - November 2009
By convention, and for purposes of monitoring air to evaluate compliance with air quality standards, the PMs of greatest concern are those with a diameter of 2.5 um or less (PM2.5). These small particles are the most likely to penetrate deeply into the lungs, reach the alveoli, and initiate the pathophysiological sequences leading to acute and chronic manifestations of cardiovascular heart disease (CHD).

Medical Journal of Australia 19.10.11 The mining and burning of coal: effects on health and the environment. William Castleden, David Shearman, George Crisp and Philip Finch.
Coalmining poses a significant threat to the integrity of aquifers, which may be hydrologically connected to other groundwater-dependent ecosystems including farm dams, bores and rivers. Water from coal mines must be disposed of and waste material is often held within the surface lease of a mine, introducing a risk of contamination of human food sources. Pollution of the environment can also occur through windblown dust during transportation, where coal is washed and at export ports.
Australia's international obligations under the agreement reached at the United Nations Conference on Environment and Development (UNCED June 1992) give EPAs permission to use the precautionary principle—that an action should not be taken if the consequences are uncertain and likely to be dangerous to the public or the environment—in their assessments. This is rarely, if ever, invoked in the case of approving new coalmines. Health impact statements for proposed mines are not requested by state governments, so the EPAs have, unwittingly, become responsible for the protection of significant aspects of public health.
The time has come for Environmental Protection Agencies to take the precautionary principle into account during their deliberations on new coalmining applications.

Epstein PR, Buonocore JJ, Eckerle K, et al. **Full cost accounting for the life cycle of coal.**
Ann NY Acad Sci 2011; 1219: 73-98.
Epstein and colleagues recently reported an analysis of the health and environmental costs of coal in the US and concluded that the damage caused by coal should double or triple the costs of coal-generated electricity.

Australian Air Quality Group. Particles. AAQG: Armidale, 25 Apr 2010. http://aaqg.3sc.net/air-pollution-and-health/particles (accessed Aug 2011).
The smallest particles, particulate matter (PM) 2.5, are the most damaging.

Relations Between Health Indicators and Residential Proximity to Coal Mining in West Virginia
Michael Hendryx, PhD and Melissa M. Ahern, PhD April 2008
As coal production increased, health status worsened, and rates of cardiopulmonary disease, lung disease, cardiovascular disease, diabetes, and kidney disease increased . Within larger disease categories, specific types of disease associated with coal production included chronic obstructive pulmonary disease (COPD), black lung disease, and hypertension.

British Trade Unions Congress (TUC) General Secretary Brendan Barber said on 2.9.11:
'Because disease and death caused by the various types of dust can take many years to develop, both employers and regulators take them far less seriously than deaths caused by injury, yet they are just as tragic for both the workers and their families.'
http://www.tuc.org.uk/workplace/tuc-19972-f0.cfm

Appendix K
3.3.3 Particulate Matter – In-Air Concentration
There are no existing data available for the average concentrations of PM 10 and PM 2.5 within the Sonoma project area. The PB assessment assumed a background PM10 concentration of 16.8 µg/m3, based on the Mackay (1999) data provided by the EPA....

It is unfortunate that there is not more data available for dust from the Sonoma Coal mine as it is close to Collinsville and Scottville and it has been known for some time that coal dust and especially PM2.5

particles present serious health issues.

Response from proponent

Sonoma operations measure dust fallout at several locations and PM10 at Collinsville Airport. This data gathering is part of the environmental management of the site with reporting to government regulator. Any problem with elevated levels requires intervention via the dust management system – this is as proposed in the technical report of Appendix K of the EIS Report.

SEIS recommendation – PM2.5 must be measured in this, the 13th year of the 21st Century under a democratic developed first world government (surely).

The evidence of averse health impacts from the dust and pollution from coal mining operations is growing and given that this project proposal is upwind of the Collinsville and Scottville communities and there are long standing rumours of a cancer and respiratory disease cluster, epidemiological research that would be expected in future will require as high a quality of monitoring as possible.

Here are some more recent reports that are relevant to this coal mine proposal:

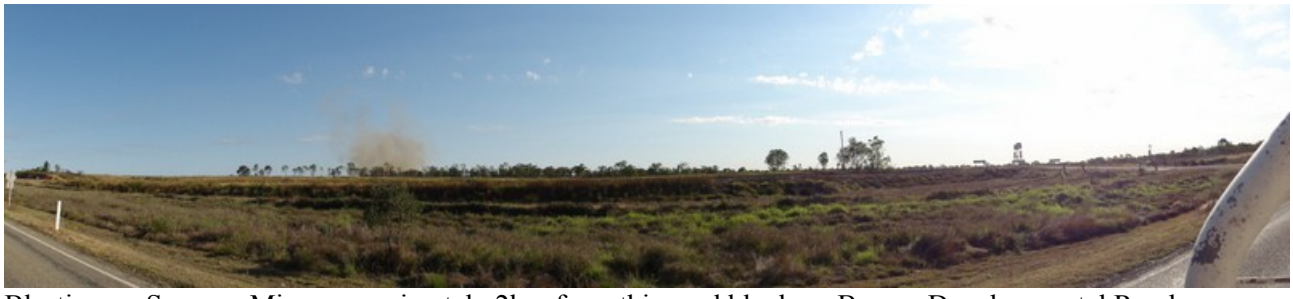
http://www.cancer.org/Cancer/news/world-health-organization-says-diesel-exhaust-causes-cancer
Article date: June 15, 2012 A group of experts from the World Health Organization (WHO) has classified diesel engine exhaust as a carcinogen – a substance that causes cancer. The International Agency for Research on Cancer (IARC), which is part of the WHO, based its decision on what it calls "sufficient evidence" that exposure to diesel exhaust causes lung cancer and "limited evidence" that it increases the risk of bladder cancer. The new classification moves diesel fuel from the category of "probably carcinogenic" to "carcinogenic."

http://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf

Lyon, France, June 12, 2012 -- After a week-long meeting of international experts, the International Agency for Research on Cancer (IARC), which is part of the World Health Organization (WHO), today classified diesel engine exhaust as **carcinogenic to humans (Group 1)**, based on sufficient evidence that exposure is associated with an increased risk for lung cancer.

http://mines.industry.qld.gov.au/safety-and-health/683.htm
There is a wealth of information on the Qld Government website about the hazards from blasting yet there are no references at all in the EIS Appendix K Air Quality Assessment.

I had an experience at a Qcoal Sonoma road block about 1 km from the Collinsville Old Town and beside an industrial depot and residence on 12.10.12 from 4pm. The window of my utility was open when i took these photographs. The cloud of dust came straight over our vehicles and the dust burnt my eyes and I experienced burning and discomfort for more than 2 weeks. The cloud could be seen drifting over the town after it passed over us. I have subsequently been informed that this gas and dust could have damaged my lungs.

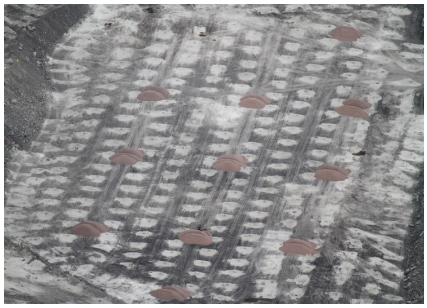


Blasting on Sonoma Mine approximately 2km from this road block on Bowen Developmental Road.


Bowen Developmental Road approximately 1 km south of Collinsville.

Sonoma Coal Mine on Coral Creek

Beside Bowen Developmental Rd.



Shot firing/Blasting preparation.

Sonoma Coal Mine uses diesel machinery.

The Sonoma Coal Mine CHPP beside the road.

There are other concerns about this EIS Air Quality Assessment. On page 14 it states: Note that the Project site and surrounding area have little to no intervening topographical features that would affect dispersion patterns, and is also not unduly influenced by coastal effects (such as sea and land breezes) due to being located 150 km inland from the coast. Anyone that has been to Collinsville would know that it is a 84km drive and less than 75km as the crow flies from the coast.

DSEIS:

2.3.2.9 Noise & Dust / Habitat Protection

Comment GR 25 - EIS submission.

In conclusion I would like to point out that at the time of the EIS for the Sonoma Coal Project I choose not to make any objection to the mine as the local community was suffering a depressed economy and needed more job creating industry. I now regret this as do many people in this area as issues with noise and dust has proved to be considerable and myself and others have spent the last 2 years trying to protect the habitat and water of Coral Creek that is threatened by its clearing, mining and diversion despite promises in the EIS of its protection.

Response
Noted, the Proponent is taking all design measures and working to state approved guidelines and standards to minimise the impacts of the mine on the receiving environment.

SEIS Comment: It is hoped that the project proponent will not use its strength of financial, legal, political and technical consultant power to overturn or minimise the standards and exploit the weaknesses and inadequacies in the legislation and guidelines that protect environmental and public health.

The dust modelling and results used are inadequate and there are shortcomings and faults in the assessment reports. Collinsville and rural properties will be sure to suffer a great increase in dust. The Sonoma mine has resulted in significant levels of dust in Collinsville so along with Jax mine there is a more than 10 times increase in mining activity proposed that will still be well within our dust spread zone.
I think there is a definite case to scale the mine down and bring the CHPP and co-disposal dam further back from the Bowen River and install a safety levee to eliminate the risk from a collapse of the dam and to remove the pits from areas subject to flooding from the River and the 12mile Gully.
There should also be an upgrade in dust suppression as the water trucks only wet the roads yet a major source of dust is the excavator and truck buckets and stockpile loaders. It would not be difficult to use water sprays and skirts, and given the serious health effects from coal dust, would be cost effective with full cost accounting.
Also there is an issue with the amount and quality of diesel used in the mines and the coal trains that will increase in number.
There should also be baseline and monitoring studies done on the health of residents of Collinsville to determine it's relationship with dust levels and particle analysis.

EIS Submission.
Again Collinsville is in an uncertain position with a politicised and polarised debate around the environmental issues with the Carbon Tax, Abbot Point, the Collinsville Power Station and the Great Barrier Reef.
As a result of this atmosphere of fear and confusion people become reluctant to speak out publicly but from my observations become more angry and dis-empowered.
Involving the local community in the EIS process is crucial to the utilisation of local knowledge and the goodwill of the community towards the operation of the project as well as scrutiny and verification of standards of performance. The following is an example of new information coming to light:

Australian Broadcasting Corporation – 730 - Broadcast: 25/02/2013 Reporter: Peter McCutcheon
A World War Two plane wreck, and unofficial war grave, could force a rethink on coal port expansion plans in North Queensland.

PETER MCCUTCHEON, REPORTER: Anne Mecklem has spent a lifetime exploring underwater. But there's one deep-sea discovery that she rates as her finest.

ANNE MECKLEM, AUSSIE REEF DIVE: It's just one of those things that, you know, you hear about it and it's, again, history. You know, history and also sad history too…

PETER MCCUTCHEON: Dive operators Anne Mecklem and her husband Brian documented for the first time the location of a World War II plane wreck. It's a remarkable piece of history that has been part of local folklore since the 1960s when fishermen would complain about getting their nets snagged.

PETER MCCUTCHEON: This is the entire rear section of a Catalina flying boat, a long-distance patrol aircraft that crashed into the seas off Bowen in North Queensland in 1943, killing 14 people. Using a depth sounder and local fishing maps, Anne and Brian Mecklem dived 40 metres to record what had been hidden for nearly 70 years…

PETER MCCUTCHEON: So it's not surprising the discovery of what remains of the Catalina made front-page news in the local newspaper two years ago. But the story didn't spread much beyond Bowen.
ANNE MECKLEM: We would've thought really that it had been reported to the proper authorities and put in - that it would be on the shipwreck, the historical shipwreck database.
PETER MCCUTCHEON: But of course it hadn't. All it was was a local story.
ANNE MECKLEM: Yes, that's right.
PETER MCCUTCHEON: It's only this year that locals felt a need to push for wider acknowledgement of the Catalina discovery because of the rapid expansion of coal mining with proposals to dredge around the nearby Point Abbott terminal.

The North Queensland Bulk Ports Corporation wants to dispose of up to three million cubic metres of dredged material offshore, and according to official documents, this could possibly mean the silt would bury the site of the Catalina wreck.
BOB HOSE, BOWEN RSL: We want to protect the integrity of the crash site so we don't want any of that plumes of silt or anything going into that site. ...
... It's probably, unofficial, a war grave. The bodies were never recovered as far as I know.(end quote)

It should not need to be said that mining operations present one of the highest environmental impacts of any industry. The open cut coal mining industry is also in the position of having a large footprint that is escalating at the time when it's future is limited because of the development of alternatives and the recognition of it's broader impacts.
It is therefore critical that the future of alternative industries to coal mining are not damaged by poor design or maximising resource recovery when there will be a large reserve in excess of the expected demand.
The pace of change, technological development, understanding of ecosystem services and advances in governance accountability would be expected to result in a much better standard of development for us and future generations.

The following text was not include in my comments on the DSEIS. I believe these comments on the political climate are important as we do not exist in a vacuum.
From page 8 – Draft Supplementary EIS - 26th November 2012
There is also another issue that is not helpful to due process for the EIS. A political narrative has been widely publicised locally for some time now, that suggests that a green party campaign with a anti-development agenda underlies environmental concerns with mining and water quality issues.

Some of the language used could be considered vilification and it appears there is a strategy to stigmatise and marginalise people that speak out about environmental issues and concerns.

SEIS:

Comment GR 44 – DSEIS submission.
This community has a strong opinion that the EIS process is a waste of time and regulation is not effective (not my opinion) and that local knowledge is not considered and decisions are made by people that have never been to see the country, creeks and rivers for themselves (I agree with this from my experience).

Response from proponent
This submission is new material that was received after the submission period ended.
Noted.

SEIS Comment. There seems to be a very cynical attitude towards Government Regulation and the EIS process in the community as I have related. Many of the people who I have spoken to from inside the mining industry and outside landholders have had experiences that continue to amaze me. The following article covers some of the issues:

http://www.abc.net.au/environment/articles/2013/03/06/3703819.htm
Do environmental assessments protect the environment?
Bianca Nogrady ABC Environment 6 Mar 2013
Andrew Macintosh - Associate Director of the Australian National University's Centre for Climate Law and Policy - says EIAs are as much about public consultation as they are about improving environmental outcomes. On that question, he feels the EIA process also leaves a lot to be desired.
"The problem is that public participation sounds nice in theory and a lot of people support it in theory, but in practice it isn't working," Macintosh says.
To begin with, the EIA reports, which are required to be made available for public comment before a decision is made on a project, are often inaccessible.
"The public gets 30 days to make comment on an EIA that can be up to 5,000 pages long, which is completely unrealistic," he says. "A lot of them are standardised documents, and they just basically fill in the gaps, so the reader is often faced with hundreds, sometimes thousands, of pages of gumpf."
He suggests regulating the size of the documents and ensuring succinct and accessible summaries of the most important points of the report....
"When people have actually looked at how accurate these assessments are, they have found a significant gap between the predicted impacts and actual impacts. The reports have predicted that x was going to happen, when in fact, the impact was y," he says.
"When you think about it, the inaccuracy in predictions is not that startling. The contractors have to make assessments about difficult-to-predict variables with little information and compressed timeframes.
"For example, species and ecological community assessments are often conducted from one site visit. If it's a herbaceous species and you walk across the site and it's not the right time of year, you aren't going to see it."
Another concern is the fact the consultants are paid by the proponents. "So you have that inherent problem everybody knows, particularly researchers, that when you get money from somebody it tends to influence what you say," says Macintosh.
However, Morrison-Saunders says a 'user-pays' system is the best way to go, as it places the responsibility on the proponents, rather than the consultant or regulator.
"If you make the regulator responsible, they can prescribe all sorts of management measures that proponents have to do, which seems fine. But then what happens when the management measures are done exactly according to the book, and they don't work?" he asks.

"If it's the mining company who is responsible for the environmental performance and it's the managing director of the mining company who could theoretically be jailed or fined $1 million if they have a pollution incident or they don't do the right thing, then they have to employ appropriate consultants." (**SEIS Comment:** I see a problem in Queensland with this approach as the fines for failure to comply with EAs and environmental regulation are completely inadequate. A case in 2010 of a pit water spill into Coral Creek from Sonoma mine because of an unauthorised discharge into a stormwater channel that had failed to be inspected for 3 consecutive quarterly inspections, and because the mine had been given a warning 2 months before after a DERM inspection had found a co-disposal dam overtopping, received a fine of $2000, See PIN.000555. **(see att. Appendix A)**
I have also been told by operation managers and staff of other mines in the Bowen Basin that they often are instructed to discharge into creeks as the fines and chance of being caught are so low.)
While the current EIA process has come in for its fair share of criticism, Dr Morrison-Saunders believes it succeeds in striking a balance between competing interests.
"There's an art to impact assessments - and that's the art of striking this balance between enough scientific information to make an informed decision and put in place a robust management system, and bowing to the pressures of politics and short-term economic gains.
"What tends to happen is everyone grizzles and moans and the good things of the EIA process are quietly ignored: good things about how projects are redesigned or how public comments are taken on board and people's concerns are actually woven into the redesigning projects or management in a different way."

Barry 06 Mar 2013 10:56:44am
The EIA process as it currently operates in most states is an absurdity. EIA's do achieve what they are designed to achieve - that is, to facilitate the progress of the proponent's project. The environmental validity of EIA's is completely compromised from the outset by state regulations which allow the proponent to hire his own consultant to do the job for him.
Clearly, this is a lucrative business for the environmental consultancy industry. Many major environmental consultancies are subsidiaries of large companies that also do construction, engineering and mining. In other words they are part of the development industry. These are examples of Caesar appealing to Caesar.
We have many instances of EIA's being simply desktop studies, with little or no ground truthing of sites. We have many cases of on ground work being carried out by staff poorly qualified to do the work. Many site studies are 'snapshot' surveys where a site is visited by a consultant for a very short time, often at the wrong time of day, with little hope of really understanding the biodiversity of the site - the main objective being to tick off the boxes. We have examples of consultants leaving out critical information that might otherwise jeopardise the project. After all, if you want ongoing business in the industry, you don't upset those who pay you.
A better model might be for governments to establish a list of independent, accredited environmental consultancies, and have an independent board which appoints them to do the work on projects. Proponents simply pay a fee up front for the cost of the work but don't compromise the outcome by being directly involved in hiring their preferred consultant.(end quotes)

I agree with a lot (but not all) of these comments as from my experience there seems to be a very serious problem with industry capture as I could not find a consultant to work on a case to oppose a proposal by a mining company to divert a creek that we depend on for our farms water supply and is critically important to the survival of a NCA listed species. I contacted most of the consultants operating in Queensland and found they were conflicted because of involvement with the proponent or considered the case to not be in their corporate interest after a risk analysis.

SEIS: Comment GR 45
Another thing that is also having an impact on the political climate is resistance to new technology associated with energy efficiency and renewable energy and the science of climate change because of fear that there may be a resultant reduction in employment. There are many reports that show high employment levels and other technological and quality of life spin-offs from these new industries and technologies.

Response
This submission is new material that was received after the submission period ended.
Noted.

SEIS Comment. I am very concerned about what I have seen for quite a while now with some industry think tank lobby groups spreading disinformation and muddying the waters as a way of weakening scrutiny and opposition, reducing project costs and maximising returns. I am not suggesting that the proponent in this case is engaged in that activity but they are benefiting from it.

Many people are misinformed and confused, and not able to make well informed decisions.
The great risk with allowing distortions of the decision making process is that the less than optimum options are taken which could prove to be very expensive as economies with more transparent and ethical governance will be on the more sustainable path.

There is also a great disadvantage for the community and industries that have a much longer term perspective and are not receiving a windfall profit from extracting a natural resource that the industry is not paying the full cost of, because we have less financial ability in the short-term to pay for teams of consultants, solicitors and public relations personal.

A foundation of democracy and good governance is government measures that balance the power of dominant self interested players with the less powerful in the community. The dangers of allowing distortions in the decision making process are written in history, have been very costly and we continue to live with the consequences as will future generations.

From my knowledge of power generation there are inherent limitations to the energy efficiency of fossil fuel technologies and even with coking/metallurgical coal, solar and renewable alternatives would be expected to dominate investment in the not too distant future. So that makes it very important that infrastructure is able to meet the higher standards and advanced alternatives that are inevitable.

And the renewable alternatives will be dependant on good water and land quality and healthy communities so the existing and proposed mines should be maintaining high standards of design and rehabilitation. It could be expected that the industries that will be in a declining position will be crying poor and making demands for standards to be cut to remain viable. I hope we do not fall for this as this will result in a loss for developing industry viability and disadvantage for our future generations.

There are some fast moving changes coming in the business and technology of energy and resource use around the world, and there is no way that Australia can remain isolated from that reality. Communities such as ours that depend heavily on coal mining will face challenges but there are enough other existing and new industries that will secure the area's future for the very long term. Because of the finite nature of coal mining it is extremely important that the foundations of the other local industries are not undermined.

The process of design and approval for mining projects has some failings that are becoming more

evident like the degree of degradation of valuable land and water resources as well as the cumulative impacts locally and further afield.
The international issue of global warming/climate change is a major factor that is very threatening world wide and is predicted to affect Australia more adversely than most other countries. There is a natural resistance to accepting what looks like a disadvantage for us and a lot of misinterpreted information is circulating as well as misinformation spread to serve vested interests.
For example there is a view that the world is facing a new iceage and a warming will be to our benefit. The following article explains the misunderstanding that has occurred.

http://www.bbc.co.uk/news/science-environment-16439807
BBC News 9.1.12
In the journal *Nature Geoscience*, they write that the next Ice Age would begin within 1,500 years - but emissions have been so high that it will not.
"At current levels of CO2, even if emissions stopped now we'd probably have a long interglacial duration determined by whatever long-term processes could kick in and bring [atmospheric] CO2 down," said Luke Skinner from Cambridge University.
Dr Skinner's group - which also included scientists from University College London, the University of Florida and Norway's Bergen University - calculates that the atmospheric concentration of CO2 would have to fall below about 240 parts per million (ppm) before the glaciation could begin.
The current level is around 390ppm.
Other research groups have shown that even if emissions were shut off instantly, concentrations would remain elevated for at least 1,000 years, with enough heat stored in the oceans potentially to cause significant melting of polar ice and sea level rise.
Groups opposed to limiting greenhouse gas emissions are already citing the study as a reason for embracing humankind's CO2 emissions.
"It's an interesting philosophical discussion - 'would we better off in a warm [interglacial-type] world rather than a glaciation?' and probably we would," he said.
"But it's missing the point, because where we're going is not maintaining our currently warm climate but heating it much further, and adding CO2 to a warm climate is very different from adding it to a cold climate.
"The rate of change with CO2 is basically unprecedented, and there are huge consequences if we can't cope with that." (end excerpts)

I received a youtube clip the other day that is going around, it goes through 5 environmental disasters it says never happened, one of them, acid rain, is something I have knowledge of. When travelling in West Germany in 1996, I visited a coal fired power station near Munich that was the first to retrofit a desulfurisation plant to reduce sulphur dioxide (SO2) emissions and acid rain. I was aware that acid rain had resulted in the death of all life in lakes in Scandinavia and the eroding of heritage buildings across Europe but I was not aware of the seriousness of the human health effects. I wanted to get some details and found this research paper:
http://www2.vwl.uni-mannheim.de/fileadmin/user_upload/pigorsch/pdf/luechinger.pdf
Air Pollution and Infant Mortality:
A Natural Experiment from Power Plant Desulfurization
Simon Luechinger* University of Lucerne and KOF Swiss Economic Institute, ETH Zurich
August 04, 2010
The paper estimates the effect of SO2 pollution on infant mortality in Germany, 1985-2003. I exploit the natural experiment created by the mandated desulfurization at power plants, with wind directions dividing countries into treatment and control groups. **See page 29 of the paper, graph directly relating infant death reductions to the reduction in SO2 pollution in Germany.**
Desulfurisation is now the norm in Europe and is being fitted to plants in China now that they are

experiencing an environmental disaster and their smog is even reaching the west coast of the United States.

A feedback comment made on the youtube video sums it up, that the problems were not as serious as threatened because people got up and done something about the problems and found alternatives.

At present there also seems to be a political strategy to deny or at least postpone the changes necessary but this will put us behind the eight ball and continue the process that is degrading our natural capital at a time when it's value is being recognised and we stand to gain by retaining as much of it as possible.

There could be an argument for trying to exploit our natural resources at the expense of our natural capital (while its value is not accounted for) while we can, but the serious downside is that we will be in a weaker position for ever after if we take the short sighted path. Natural capital has the potential to sustain us indefinitely if we manage it properly.

Economic Imperatives

The problems evident in the approval and regulation processes are great and the long term consequences very serious. The economic implications of making decisions based on poor quality information biased towards the status quo at a time of rapid advances in the technologies of ecosystem analysis and industrial production are also very serious. We risk wasting limited resources on dinosaur technologies and building expensive white elephants.

The present economic orthodoxy, that considers social, health and environmental costs as externalities is now obviously unsustainable and the change to real Triple Bottom Line/True Cost Accounting is likely to occur soon and be internationally adopted very quickly. Nations and States that are not prepared for this inevitable and imminent eventuality will be left at a great disadvantage.

There are growing doubts about the inherent biases and vested interests that influence the interpretation of information of variable quality and growing complexity. The quality of advice from Government Bureaus in the United States as well as in Australian and other democratic countries is being questioned as it is often proving to be seriously inadequate. As the world population continues to grow and the environment continues to degrade, the quality and precision of decisions becomes a great deal more important. Changes in world political power becoming more concentrated in corporate hands and countries that have limited effective democracy growing in influence gives reason for concern but a strengthening of governance and transparency standards in International relations would be expected to progress as the stakes grow higher. Rigorous truly independent assessments should become more of a imperative and commonplace.

Here are some articles from respected sources that illustrate the diversity of views in currency:

Too Much Luck - The Mining Boom and Australia's Future by Paul Cleary Blackinc Books 2011

Our state and federal politicians have become so bedazzled by the prospect of even greater mineral riches that they are eagerly encouraging a resources rush while neglecting long-term ecological and financial consequences.

Australia needs to reform its regulation of the mining industry, in particular by embracing greater cooperation between state and federal governments than our 1901 Constitution provides for.

Without such reforms, a handful of multinational companies will continue to profit enormously from resources that by rights belong to all Australians. Under our current system, those most directly affected by mining projects-local communities, regional towns, Indigenous land-owners-often benefit very little.

Relying on resource commodities to pay your way in the world thus makes countries more vulnerable to global prices and supply resources. As Warren Buffett has said, there ain't anything special about the stuff-it has no unique 'franchise'- and that's why the world's most successful investor avoids the sector. Coal and iron ore are nothing like a Great Barrier Reef or Kakadu holiday experience, which are unique in the world and

which European and Asian tourists are willing to pay very good money for. They are nothing like our grain, beef or dairy exports, which benefit in global markets from our reputation for a healthy food production chain. They are nothing like the education services that were earning Australia close to $20 billion a year until recently. And nor are they anything like the medical products made by CSL, Cocklear or the emerging adult stem cell company Mesoblast. These products are either unique or have brand value that is difficult or impossible to copy and which has therefore secured them a place in the global economy.
But while commodity prices are high, the boom will play havoc with these other exporters, who will see their foreign currency earnings slashed when they convert them to Australian dollars.
The Minerals Council of Australia (MCA), which is funded mainly by the big miners, has strongly denied that the mining boom is having a negative impact on industries such as tourism.

http://dea.org.au/news/article/coal-curse-the-black-side-of-the-subsidised-resources-boom
Doctors for the Environment – Coal curse: the black side of the subsidised resources boom. 8.7.12
The Reserve Bank has argued that, while the importance of the resources boom has provided a positive impetus for the Australian economy, our over-reliance on minerals is a "resource curse" that looms ominously over our economic future.
In a resource curse, high levels of investment and support for the resource sector undermine the viability of other industries that provide more enduring employment opportunities and are more ecologically sustainable. But Australia's resource curse has an even blacker side, because it is based on an insidious myth about the real economic costs of coal.
Burning coal is the primary source of Australia's apparently "cheap" energy. Paradoxically, while coal generates a lot of royalties for State governments and is the nation's second largest export earner, the industry contributes only around 1.8 per cent to GDP. This is compared to other industries such as financial and insurance services (9.6%), retail and wholesale trade (8.6%), construction (7.7%) and health care and social services (6%). It is a relatively insignificant employer, even where mining is concentrated. In the Hunter it employs only 6% of the region's workforce.
These economic positives: export and royalty income, energy supply, and a small contribution to GDP and employment, have to be weighed against some very high costs. These are usually invisible in the public debate about the coal resource.
The whole mining industry receives a subsidy in the form of a tax rebate on the diesel that fuels the trucks and machinery. This $2 billion a year subsidy amounts to $87 annual contribution from every Australian.
Governments provide many high-energy users like miners with cheap electricity. For example, while household and small business electricity prices in NSW are rising at around 15% per year, wholesale prices paid by industry have not risen for 12 years. NSW residents subsidise the price of coal to power stations as well as pay higher electricity prices
We don't just bear the cost of coal through the subsidies our taxes fund. There are other costs. The Newcastle-Hunter region provides a good example of the darkest side of the coal curse. Productive rural industries have thrived for two hundred years in the Hunter Valley, including viticulture, horse breeding and mixed farming. These industries, essential to food supply and a balanced, mixed and ecologically-sustainable economy are being displaced as mining extends its reach.
Waterways and land are blighted with saline discharge from mines, coal dust and power station fallout, damaging crops and stock as well as eradicating native species. Villages, farms and heritage properties have disappeared while punishing shift work schedules and a commuter workforce threaten the fabric of family life and community organisations.
The health costs of coal mining and burning are severe, leading some experts to brand coal "the new tobacco". The Australian Academy of Technological Sciences and Engineering (ATSE, 2009) estimated the total healthcare bill in Australia from coal-fired power station pollution to be $2.6 billion a year.
On a global scale, coal is the leading source of greenhouse gas emissions and thus the main industrial source of climate change. The burning of coal for electricity has grown faster than any other source of greenhouse gas emissions, and accounts for more than half of world emissions from stationary sources.
Though the costs to Australian and global society are huge, with such generous government subsidies, it is not surprising that production of coal-fired power shows no signs of abating, and likewise the continued growth of coal mining and coal exports. The coal curse has descended on Australia, and without urgent action we can only look forward to a mounting burden of illness, environmental degradation, economic dislocation, social disintegration and a warming planet.

The National Strategy for Ecologically Sustainable Development (COAG 1992) (ESD) principles. *The key objectives of the ESD as outlined in the Strategy are: -*

- *"To enhance individual and community well - being and welfare by following a path of economic - development that safeguards the welfare of future generations; -*
- *To provide for equity within and between generations; and -*
- *To protect biological diversity and maintain essential ecological processes and life – supporting - systems". -*

The principles presented here are very admirable but there are serious questions about the balance between these principles and the maximisation of short term production and profit that is evident in most resource extraction proposals. **It would seem that the ESD protocol is only given lip service from most levels of State and Federal Government judging by recent decisions. The underlying principle that our economy is a subsystem of the ecosystem seems to have been forgotten or is being ignored.**
The Rio+20 Conference on Sustainable Development last year shows how much is happening worldwide and how disciplines that have been in the background would be expected to continue to emerge after the wakeup call of the GFC.

CONCLUSIONS OF THE UNITED STATES FINANCIAL CRISIS INQUIRY COMMISSION

Financial institutions and credit rating agencies embraced mathematical models as reliable predictors of risks, replacing judgement in too many instances. Too often, risk management became risk justification.
http://fcic-static.law.stanford.edu/cdn_media/fcic- reports/fcic_final_report_conclusions.pdf

http://www.guardian.co.uk/environment/2010/feb/18/worlds-top-firms-environmental-damage
The cost of pollution and other damage to the natural environment caused by the world's biggest companies would wipe out more than one-third of their profits if they were held financially accountable, a major unpublished study for the United Nations has found.
The report comes amid growing concern that no one is made to pay for most of the use, loss and damage of the environment, which is reaching crisis proportions in the form of pollution and the rapid loss of freshwater, fisheries and fertile soils.

From:**Australian Government response to the report of the independent review of the Environmental Protection & Biodiversity Conservation (EPBC) Act. June 2011**
International reports have confirmed the value of biodiversity and in particular ecosystem services. For example, the recently released United Nations Environment Program report, Dead planet, living planet: Biodiversity and ecosystem restoration for sustainable development , notes that ecosystems deliver essential services worth between US$21 trillion and US$72 trillion a year, which is comparable with the 2008 World Gross National Income of US$58 trillion. At the same time, recent international findings continue to confirm that global biodiversity is in significant and ongoing decline. To tackle the challenge of biodiversity decline we must change how we manage the natural environment. This shift is important if we are to maintain healthy and resilient life-supporting ecosystem functions and biodiversity, particularly in the face of the impacts of climate change on natural ecosystems.

http://www.ecoeco.org/content/
Ecological economics exists because a hundred years of disciplinary specialization in scientific inquiry has left us unable to understand or to manage the interactions between the human and environmental components of our world. While none would dispute the insights that disciplinary specialization has brought, many now recognize that it has also turned out to be our Achilles heel. In an interconnected evolving world, reductionist science has pushed out the envelope of knowledge in many different directions, but it has left us bereft of ideas as to how to formulate and solve problems that stem from the interactions between humans and the natural world. How is human behaviour connected to changes in hydrological, nutrient or carbon cycles? What are the feedbacks between the social and natural systems, and how do these influence the services we get from ecosystems? Ecological economics as a field attempts to answer questions such as these.

Conclusion
Collinsville has a proud history in mining and community solidarity and social cohesion but it is facing great challenges with the critically important issues of personal, community and environmental health.

It is argued that the reporting of the issues we have are largely a result of exaggeration for political or financial purposes but for those of us on the coalface the reality is hard to downplay, dismiss or ignore.

The cost to families and communities from a loss of environmental and personal health is incalculable and cannot be traded off in a zero sum game of winners and losers.

We must aim for zero harm in the workplace and in the community.

Post Script
This submission has been written in the spirit of the mountains of impact statements, expert reports, scientific papers, government acts, affidavits and books and articles that I have had to read over the last two and a half years.

Many people are coming to the same conclusion, that the democratic and bureaucratic process of Government is not infallible and depends on people of good faith contributing to the governance process and being vigilant and speaking out when the process fails or is corrupted.

"Democracy is the worst form of government, except for all those other forms that have been tried from time to time." (from a House of Commons speech by Winston Churchill on Nov. 11, 1947)

The advantage of democracy is its responsiveness to the common sense of people and the check that it makes on the power of narrow political or corporate interests but democracy is vulnerable and needs our respect and care.

“The twentieth century has been characterized by three developments of great political importance: the growth of democracy, the growth of corporate power, and the growth of corporate propaganda as a means of protecting corporate power against democracy.”

Alex Carey, *Taking the Risk out of Democracy: Propaganda in the US and Australia*

I apologise for any mistakes, inaccuracies, bad grammar and potentially selective presentation of information in my submission. (I am very aware of selection bias and cherry-picking of information presented as impartial and see evidence of this from quarters that you expect to be more careful and ethical, which causes me great concern. As a layman I present this submission from a personal perspective and welcome academic analysis of the content and material that I do not claim to be completely impartial as these issues are experienced very close to home.)

I am very grateful to the Senate of the Parliament of Australia for the opportunity to contribute to this Senate Committee Inquiry.

Yours Sincerely, Garry A Reed